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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,814	04/19/2001	Shinji Tanaka	1139-01	6169
35811 7590 11/26/2003 IP DEPARTMENT OF PIPER RUDNICK LLP 3400 TWO LOGAN SQUARE 18TH AND ARCH STREETS PHILADELPHIA, PA 19103			EXAMINER THORNTON, YVETTE C	
			ART UNIT 1752	PAPER NUMBER

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/807,814

Applicant(s)

TANAKA ET AL.

Examiner

Yvette C. Thornton

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This is written in reference to application number 09/807814 filed on April 19, 2001, which is a 371 of PCT JP00/05911.

#### *Response to Amendment*

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. Claims 1-2 and 4-9 are currently pending.

#### *Claim Interpretation*

3. Claims 1-2, 4-5 and 7 recite a process of use limitation that only requires the composition to be capable of evaporating or discoloring. More specifically, the claim recites method limitations that do not further define the material. Therefore, any method may be used to make the material. Consequently, the burden shifts to Applicant to provide evidence of an unobvious difference between the claimed product and the prior art. Furthermore, "The Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann, 180 USPQ 324,326 (CCPA 1974), see MPEP 2113.
4. The said claims also contain a process limitation require the optical changing layer to have a specific optical density before and after irradiation, however an irradiation step is neither claimed nor required. Therefore requiring the material to only be capable of having a change in optical density.

*Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Fan et al. (US 5262275 A) with Solms et al. (US 2002/00658773) cited to teach inherent properties. Fan exemplifies photosensitive element having a layer, which is sensitive to IR radiation and two types of barrier layers. An IR sensitive layer was obtained by using an IR-sensitive UV opaque film having a support. A photopolymerization layer was obtained by using a CYREL 107 PLS+ printing element. In the printing element, the photopolymerizable layer (i.e., photosensitive layer) is overcoated with an elastomeric layer which functions as one barrier layer (film stripping layer) and is further overcoated with a polyamide release layer which functions as the second barrier layer (c. 11, l. 45-61). A sheet of IR sensitive UV opaque film was sprayed with a mixture of methanol and ethanol to soften the coating. The CYREL coversheet was removed and the softened coating side of the IR sensitive film was placed on top of the release layer. This was laminated at room temperature to squeeze out the excess solvent. The IR support was then removed from the IR sensitive layer and the element was dried. The density of the IR sensitive layer was increased by laminating additional IR sensitive films, with the coating softened onto the element four more times (c. 11, l. 62-c. 12, l. 5). Example 4 illustrates an IR layer, which is used with a

single barrier layer, which is completely removed in the developer solvent. SBS, a styrene-butadiene-styrene block copolymer was pre-compounded with carbon black. An IR sensitive composition was prepared by dispersing and dissolving SBS-10phr carbon black; a tetrapolymer of methylmethacrylate/acrylonitrile/butadiene/styrene; and butyrate hydroxy toluene in methylene chloride. The coversheet was removed from a CYREL printing element and the IR sensitive composition was coated onto the release layer of the CYREL plate, which functioned as a barrier layer (i.e., film layer). The element was then laser ablated. After imagewise ablating the IR sensitive layer, the element was exposed with a CYREL 3040 light source and developed. In the development step, the black and barrier layer are completely removed along with the unexposed areas of the photopolymerizable layer. An image with good relief highlight dots was obtained (c. 12, l. 60-c. 13, l. 30).

Fan teaches that photopolymerization layer can vary over a wide range depending on the type of printing plate desired. Thin plates range from 20-50 mil (508-1270  $\mu\text{m}$ ), while thicker plates range from 100-250 mil (c. 4, l. 4-10). The barrier layers generally will have a thickness of 0.01-3 mils (0.25-76 $\mu\text{m}$ ) (c. 5, l. 44-51). Any conventional sources of actinic radiation may be used to polymerize the photopolymerizable layer. The most suitable source is a standard SYLVANIA 350 blacklight fluorescent lamp, which has a central wavelength of 354 nm (c. 9, l. 43-53).

It is the examiner's position that the CYREL printing element meets the limitations of the claimed support, photosensitive layer and film layer. The taught IR sensitive composition of example 4 meets the limitations of the claimed optical density changing layer wherein styrene-butadiene-styrene meets the limitations of a heat decomposable compound and

carbon black meets the limitations of a light to heat converting substance. Although Fan fails to explicitly discuss optical density and evaporate or discoloration, it is the examiner's position that a composition comprising the taught components would readily have a change in optical density before and after exposure. Furthermore, it is well known and conventional in the art that carbon black discolors on exposure to energetic radiation (see SOLMS p. 0006).

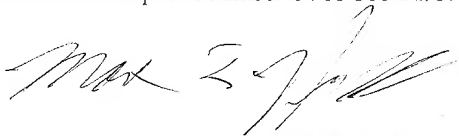
*Response to Arguments*

7. Applicant's arguments with respect to the instant claims have been considered but are moot in view of the new ground(s) of rejection.
8. The examiner hereby withdraws the rejection of the claims over Barynznski in view of Boggs as set forth in the prior office action, in light of applicant's arguments.

*Conclusion*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette C. Thornton whose telephone number is 703-305-0589. The examiner can normally be reached on Monday-Thursday 8-6:30.
10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on 703-308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.
11. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1495.

yct  
November 19, 2003



MARK F. HUFF  
SUPERVISOR, EXAMINER  
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